

What Is Claimed Is:

1. A method for providing electronic content to users from at least one remote electronic content source, the method comprising:

    providing a unicast transmission of content from the at least one content source;

    receiving the content at a client-side server at a location serving a plurality of users;

    processing the received content in the client-side server such that the content may be provided to more than one of the plurality of users served by the location; and

    distributing the received and processed content to each of the plurality of users which has provided a request for the content.

2. The method of claim 1 wherein distributing the received and processed content comprises distributing the content to a multicast group including each of the plurality of users which has provided a request for content by subscribing to the multicast group.

3. The method of claim 1 comprising monitoring at the client-side server for distribution of content to the plurality of users.

4. The method of claim 3 comprising terminating the content transmission from the at least one content source to a

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client-side server when the client-side server is not distributing the content to any of the plurality of users.

5. The method of claim 3 comprising transmitting additional content from the at least one content source to the client-side server in response to a request by a user of the plurality of users served at the location by the client-side server for content not currently being transmitted by the at least one content source to the client-side server.

6. The method of claim 5 wherein transmitting the additional content comprises transmitting the additional content in another unicast transmission.

7. The method of claim 1 wherein the providing comprises converting multicast format content into unicast format content for transmission to the client-side server.

8. The method of claim 1 wherein the processing comprises converting content received in a unicast format into a multicast format suitable for transmission to a multicast group.

9. The method of claim 1 comprising monitoring transmitted content and limiting transmitted content to maintain an amount of bandwidth suitable for servicing at least one application being run by each of a plurality of users other than the content being received by such user.

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10. The method of claim 1 wherein the content is transmitted as streaming content.

11. The method of claim 10 wherein the content is transmitted across the Internet.

12. A system for reducing the amount of bandwidth required to provide electronic content to a plurality of users from a remote electronic content source, the system comprising:

a content source that allows the plurality of users to request content, the content source providing a unicast transmission of the requested content from the content source to the plurality of users in response to the content request;

a client-side server for receiving the requested content with at the plurality of users' location, the client-side server processing the received content such that the content is suitable for posting to a multicast group; and for distributing the received content from the multicast group to the plurality of users.

13. The system of claim 12 wherein the client-side server further comprises a listening socket for receiving and queueing content requests.

14. The system of claim 12 wherein the client-side server further comprises a monitoring program to monitor subscribers to the multicast group to determine if at least some multicast

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group subscribers are requesting the content transmitted by the content source.

15. The system of claim 14 wherein the monitoring program includes software that terminates the content transmission if no subscribers within the multicast group are requesting the content being received from the content source.

16. The system of claim 14 wherein the monitoring program includes software that requests transmission of an additional content stream if a subscriber within the multicast group is requesting content not currently being transmitted by the content source.

17. The system of claim 12 wherein the content source further comprises circuitry that converts multicast format content into unicast format content for transmission to the client-side server.

18. The system of claim 12 wherein the content source server further comprises a pseudo media player that converts content received in unicast format into a multicast format suitable for posting to the multicast group.

19. The system of claim 1 wherein the monitoring program includes software that ensures a minimum amount of

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upstream bandwidth is preserved in a transmission path for accommodating application critical communications.

20. A method for providing a minimum quality of service in a reduced bandwidth network that provides electronic content to a plurality of users from a remote electronic content source, the method comprising:

allowing the plurality of users to request content from the electronic content source;

providing a unicast transmission of the requested content from the content source to the plurality of users in response to the content request;

receiving the requested content with a client-side server at the plurality of users' location; and

processing the received content in the client-side server such that the content is provided to a multicast group;

distributing the received content from the multicast group to the plurality of users.

21. The method of claim 20 further comprising monitoring the transmission characteristics of the network with fault detection software to determine if a quality of service over any transmission link is below a predetermined level.

22. The method of claim 20 wherein the monitoring further comprises analyzing the network interconnections and rerouting some or all of the content if any communication path is providing a quality of service below the predetermined level.

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23. The method of claim 20 wherein the monitoring further comprises analyzing the client-side server for potential quality of service problems.

24. The method of claim 23 wherein the monitoring further comprises assessing the availability of other client-side servers.

25. The method of claim 24 further comprising replacing an inoperative client-side server with a server deemed available in the assessment step to maintain a minimum quality of service level.

26. The method of claim 24 further comprising reassigning at least part of a workload of a client-side server deemed overburdened by the fault detection software with a server deemed available in the assessment step to balance client-side server workload.

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